BUTTE COUNTY
BOARD OF SUPERVISORS
AGENDA TRANSMITTAL

CLERK OF THE BOARD USE ONLY

MEETING DATE: AUG 26 2003
AGENDA ITEM: 403

AGENDA TITLE: Staff Update Regarding Lake Oroville Relicensing and PM&Es

DEPARTMENT: County Counsel BSA	**DATE:** 8/19/03	**MEETING DATE REQUESTED:** 8/26/03
CONTACT: Bruce Alpert	**PHONE:** 538-7621	**REGULAR** X **CONSENT**

DEPARTMENT SUMMARY AND REQUESTED BOARD ACTION:

See Attached

AGENDA ITEM SUBMITTALS REQUIRE THE ORIGINAL AND TWELVE (12) COPIES
ATTACH EXPLANATORY MEMORANDUM AND OTHER BACKGROUND INFORMATION AS NECESSARY

Budgetary Impact: Yes_____ No X
If yes, complete Budgetary Impact Worksheet on back
Budget Transfer Requested: Yes_____ No _____
If yes, complete Budget Transfer Request Worksheet on back.
(Deadline is one business day prior to normal agenda deadline)
Will Proposal Require an Agreement: Yes_____ No x
Auditor-Controller's Number (if required):____
County Counsel's Approval: Yes_____ No_____
Will Proposal Require Additional Personnel: Yes_____ No x
Number of Permanent:_____ Temp_____ Extra Help _____

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Administrative Office Review_____
Administrative Office Staff Contact_____

4/5's Vote Required: Yes:_____ No:_____

Date Received by Clerk of Board: AUG 20 2003

Previous Board Action Date:_____ Additional Information Attached: Yes x No_____
Describe:

I. Where we are Currently in the Overall Relicensing Process.

A. Activities to be undertaken over the next 8 months (to April 2004).

- **PM&E Process -** identify, develop, review, assess, evaluate, and prioritize proposals.
- **Studies Process -** review Phase 1 Study results and identify, develop, and approve new, revised or supplemental Phase 2 Studies.
- **Environmental Documentation Process -** prepare Preliminary Draft Environmental Assessment and related documents, including Cumulative Impacts/ESA Guidance Document.
- **Settlement Agreement Negotiation Process -** develop and approve Settlement Process Protocol.

B. April to October 2004 - Negotiate Settlement Agreement.

C. January 2005 - DWR must file relicensing application with FERC.

II. County's Goals and Protection, Mitigation and Enhancement (PM&E) Measures.

On April 7, 2003, Butte County submitted the first 5 of 11 PM&Es, which are: New Master Recreation Plan (PM&E #1), Local Fish and Wildlife Improvements (PM&E #4), Lake Oroville Oversight Committee (PM&E #6), Measurable Standards to Ensure an Exceptional Recreational Experience and Proper Cultural Resource Protection (PM&E #7), and Develop and Implement Measures and Programs to Rectify Past, Present and Future Lake Oroville Facilities and Operational Impacts on Local Government Services and Infrastructure (PM&E #8).

On June 10, 2003, Lake Oroville Oversight Committee (PM&E #6) was brought back to the Board for further discussion and amendment.

Presented to the Board of Supervisors for consideration today are PM&Es on Thermalito Afterbay Water Temperature Improvements (PM&E #3), Improved Flood Protection Measures (PM&E #10), and Watershed Protection (PM&E #11).

A. Thermalito Afterbay Water Temperature Improvements (PM&E #3).

The proposed resource actions are as follows:

1. Two canals and four dikes would be constructed to channel releases from the Thermalito Powerplant in a counterclockwise direction around the entire Afterbay as depicted on the map attached hereto.

2. DWR would be required (if necessary) to curtail hydroelectric peaking-pump back water operations during a four week rice planting period.

3. For the period mid-May through October of each year, DWR would optimize the release of water to the Thermalito Afterbay for recreation, fish, and rice production purposes.

4. DWR would construct an alternative canal intake near the southwest corner of the Afterbay so that during April and May and other times as necessary, Butte Water District, Biggs-West Gridley Water District, Sutter Extension Water District and Richvale Irrigation District could take water from the Afterbay and not from their river diversion downstream of the Afterbay outlet.

B. Improved Flood Protection Measure (PM&E #10).

The proposed action would be to develop, as soon as possible, an early warning and evacuation system for areas projected to be inundated by the range of potential Oroville Dam flood flow releases and overflows.

C. Watershed Protection (PM&E #11).

The proposed action would be to design a watershed protection plan to reduce the intensity of wildfires and improve the quality and quantity of runoff in the Feather River Watershed. The specific goals would be as follows:

1. Improve retention (storage) of water for augmented base flow in streams;
2. Improve water quality (specifically, reduce sedimentation) and stream bank protection;
3. Improve upland vegetation management and;
4. Improve groundwater retention/storage and major aquifers.

III. Butte County Procedural and Substantive Interest in the Relicensing Process.

Butte County has been emphasizing two simple procedural interests at the Plenary Group and Process Task Force meeting for the last year. Butte County does not want to spend a lot of time and resources fine tuning DWR's relicensing process. DWR needs to ensure that the process is both fair and transparent and those are the standards that Butte County will use to evaluate DWR's process.

Butte County's Procedural Interests

P-1. The relicensing process shall be fair.

P-2. The relicensing process shall be transparent.

Butte County's Substantive Interests

Provided hereinbelow is a revised list of Butte County's substantive interests which have recently been distributed to the Process Protocol Task Force. These interests were included in our memorandum to the Board of Supervisors on February 11, 2003. This version makes some minor editorial changes and updates the list to coincide with the Process Protocol Task Force issues.

S-1. For DWR to share the water and power wealth from the Lake Oroville Facilities with the local community and not just with Southern California and other export urban and agricultural areas ("Local Community Justice"):

a. By developing a new comprehensive recreation plan, including new facilities and activities both at the lake and below the dam and fish and wildlife improvements.

b. By supporting and funding local economic development.

c. By improving Butte County's State Water Project water entitlement benefits and improving the flexibility of use of the County's entitlement.

S-2. For DWR to provide a quality, multi-faceted recreational experience for project users with responsive, effective, and accountable recreation resource management.

S-3. For DWR to rectify past, present, and future project impacts to local government infrastructure and services, recreation, fish and wildlife, and agricultural operations and to comply with applicable land use, environmental, and other local laws.

S-4. For DWR to protect local historic cultural resources and to rectify past, present, and future project impacts to those resources.

S-5. The obtain redress for what the local community strongly considers past DWR broken promises.

S-6. To insure that all new DWR promises are kept.

Resource Action Identification Form

It is anticipated that potential Resource Actions may be very preliminary at this stage. Please fill out as many sections as possible but, at a minimum, sections 1, 2, and 3. Resource Actions may be refined, reviewed and screened over time through Work Group, Plenary and Settlement discussions.

1. **Name of Proposed Resource Action:**
   a. Name of proposed Resource Action:

Thermalito Afterbay Water Temperature Improvements

(BC PM&E#3)

2. **Proposed Resource Action – Please describe and include the following:**
   a. Describe the proposed Resource Action in as much detail as practical:

- Two canals and five dikes would be constructed to channel releases from the Thermalito Powerplant in a counterclockwise direction around the entire Afterbay. Oroville Dam Boulevard crosses the northern section of the Thermalito Afterbay. A 0.25-mile canal would be constructed through and across the narrowest point on the large peninsula at the Northeast portion of the Afterbay over which the Boulevard traverses. A 1.0-mile canal would be constructed along the Eastern side of the Afterbay from 0.25 to 0.50 miles away from the water and would terminate where Wilbur Road meets the Afterbay. Five dikes would be constructed in the Afterbay. A large dike would be placed north of the peninsula described above to prevent Thermalito Powerplant releases from flowing toward the agricultural intake located at the Northwest corner of the Afterbay.

- DWR would be required (if necessary) to curtail hydroelectric peaking/pumpback water operations into Thermalito Afterbay during the four-week rice planting period in the spring to achieve a field water temperature of 68° F.

- For the period mid-May through October of each year, DWR would operate the Lake Oroville Temperature Control Device and would investigate other measures to optimize the release of water to the Thermalito Afterbay for recreation, fish, and rice production purposes.

- Construct an alternative canal intake near the Southwest corner of the Afterbay so that during April and May and at other times when necessary, Butte Water District, Biggs-West Gridley Water District, Sutter Extension Water District, and Richvale Irrigation District could take water from the Afterbay and not from their river diversion downstream of the Afterbay outlet.

b. Any physical or operational changes:
☒ Yes ☐ No ☐ Don't know
If Yes, Please explain: See above description.

c. Proposed start date and duration
Start (month/yr): Duration (month(s)/yr(s)):

(1) Operational changes not requiring new facilities would be implemented as soon as possible, but not later than January 31, 2007, and would continue thereafter so long as the FERC license is in effect.

(2) New facilities would be constructed and fully operational by January 31, [year to be determined]. Operation of the new facilities would continue thereafter so long as the FERC license is in effect.

d. Location (within FERC boundary/outside FERC boundary)
☒ Inside ☐ Outside ☐ Don't know
Please specify possible location(s) referring to the linked map (http://orovillerelicensing.water.ca.gov/maps.html), or providing a map as appropriate: Map will be provided.

e. Please provide alternative potential Resource Actions for addressing the same resource goal and/or Project 2100 effects referring to the linked map, or providing a map as appropriate:

Alternative configurations of physical improvements and power generation operational rules can be developed to achieve the yet-to-determined seasonal Afterbay target water temperatures for fish, recreation, and agricultural uses. A pipeline may need to be constructed to carry water for fishery purposes from the Thermalito Powerplant tailrace channel to the Afterbay outlet for release into the Feather River.

f. Describe the methods for measuring the goals and performance of the Resource Action or methods for evaluating success against the known resource goal(s):

Work Groups will need to determine appropriate measurable goals for fish, recreation, and agricultural uses and how those goals would be measured and evaluated.

g. Describe the feasibility of the Resource Action:

The proposed Resource Action is very feasible. The new canals and dikes will need to be properly engineered to accommodate Thermalito Powerplant releases and pumpback operations.

h. Please mark the applicable Working Groups that would be involved in the implementation of this Resource Action:
- ☐ Land Use and Management
- ☒ Recreation & Socioeconomics
- ☐ Cultural Resources
- ☒ Engineering and Operations
- ☒ Environmental

3. Contact Information for Submitter(s) & Alternate Contact:

a. Organization name: County of Butte

b. Preparer's name, phone number and e-mail address: Roger Masuda, (209) 667-5501, rmasuda@calwaterlaw.com

c. Secondary contact person, phone number and e-mail address: Bruce Alpert, (530) 538-7621, balpert@buttecounty.net

d. Date prepared: July 15, 2003

e. Organization(s) represented by submitter: County of Butte

Please fill out the following questions to the best of your ability, understanding that you may not have this information or it may not be available.

4. Resource Goals:

a. Identify and describe the resource goal the Resource Action is related to, providing reference to the resource goal number(s) described, as appropriate:

☐ I don't know

b. Explanation of how the Resource Action furthers that goal:

☐ I don't know

5. Identify the Resource Issue/Relationship to Project and Relicensing

a. Describe the issue the Resource Action is intended to address, referring as appropriate to Issue Statement(s) number(s):

To provide Thermalito Afterbay water temperatures that will meet seasonal beneficial uses for recreation, fish resources, and agricultural operations. Applicable Issue Statements: W1, W2, W3, W4, W9, W10, W11, W12, W14, W16, F1, F2, F3, F13, T1, E12.

b. Describe the relationship between the Resource Action and the project, including any project impacts the Resource Action is intended to address:

- The Thermalito Afterbay, a FERC project feature, was specifically designed and constructed with the purpose of fulfilling DWR's obligation under the water rights settlement agreement to provide irrigation water from the Lake Oroville Facilities at warm water temperatures for the production of rice. A primary beneficiary of the warmer water temperatures has been recreational use at the Afterbay. Afterbay recreation has become increasingly important because low and fluctuating Lake Oroville water levels have negatively impacted recreational uses at the lake.

- DWR's hydroelectric power operations that utilize the Thermalito Afterbay, particularly for hydroelectric pump-storage operations, appear to be the primary cause of the adverse recreational and agricultural water temperature problems at the Thermalito Afterbay.

- Fish water temperatures resulting from the discharge of water from the Afterbay to the Feather River are a FERC relicensing issue.

- The beneficial uses of water affected by Thermalito Afterbay operations include, but are not limited to, (1) contact recreation, (2) warm-water and cold-water fish spawning, rearing, and migration, and (3) irrigated agriculture and are appropriate issues for the Clean Water Act Section 401 certification needed by DWR for relicensing.

c. Identify any comprehensive plans that this Resource Action is related to:

_____

☒ Unknown

Resource Action Identification Form

It is anticipated that potential Resource Actions may be very preliminary at this stage. Please fill out as many sections as possible but, at a minimum, sections 1, 2, and 3. Resource Actions may be refined, reviewed and screened over time through Work Group, Plenary and Settlement discussions.

1. **Name of Proposed Resource Action:**
   a. Name of proposed Resource Action:

Improved Flood Protection Measures

(BC PM&E#10)

2. **Proposed Resource Action – Please describe and include the following:**
   a. Describe the proposed Resource Action in as much detail as practical:

Develop an early warning and evacuation system for areas projected to be inundated by the range of potential Oroville Dam flood flow releases and overflows.

b. Any physical or operational changes:
☐ Yes ☒ No ☐ Don't know
If Yes, Please explain: _____

c. Proposed start date and duration
Start (month/yr): Duration (month(s)/yr(s)):

As soon as possible but not later than January 31, 2007, and would continue thereafter so long as the FERC license is in effect.

d. Location (within FERC boundary/outside FERC boundary)
☒ Inside ☒ Outside ☐ Don't know
Please specify possible location(s) referring to the linked map (http://orovillerelicensing.water.ca.gov/maps.html), or providing a map as appropriate:

Feather River from Oroville Dam downstream to the point where Oroville Dam flood flow releases would not significantly contribute to flooding.

e. Please provide alternative potential Resource Actions for addressing the same resource goal and/or Project 2100 effects referring to the linked map, or providing a map as appropriate:

There is no substitute for a proper and functioning early warning system and an effective evacuation plan.

f. Describe the methods for measuring the goals and performance of the Resource Action or methods for evaluating success against the known resource goal(s):

The early warning system should be tested at least annually. The evacuation plan procedure should be reviewed annually and periodically tested with simulated practice evacuations that would involve all appropriate local public safety and DWR personnel.

g. Describe the feasibility of the Resource Action:

Highly feasible and essential for public protection from project operations.

h. Please mark the applicable Working Groups that would be involved in the implementation of this Resource Action:

- ☒ Land Use and Management
- ☒ Recreation & Socioeconomics
- ☒ Cultural Resources
- ☒ Engineering and Operations
- ☒ Environmental

3. Contact Information for Submitter(s) & Alternate Contact:

a. Organization name: County of Butte

b. Preparer's name, phone number and e-mail address: Stuart Edell, (530) 538-7266, sedell@buttecounty.net.

c. Secondary contact person, phone number and e-mail address: Bruce Alpert, (530) 538-7621, balpert@buttecounty.net.

d. Date prepared: July 11, 2003

e. Organization(s) represented by submitter: County of Butte

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Please fill out the following questions to the best of your ability, understanding that you may not have this information or it may not be available.

4. Resource Goals:

a. Identify and describe the resource goal the Resource Action is related to, providing reference to the resource goal number(s) described, as appropriate:

☐ I don't know

b. Explanation of how the Resource Action furthers that goal: _____

☐ I don't know

5. Identify the Resource Issue/Relationship to Project and Relicensing

a. Describe the issue the Resource Action is intended to address, referring as appropriate to Issue Statement(s) number(s):

Applicable Issue Statements: E2, E3, E4, E5, E6, E7, G2, and G5. E5 includes consider early warning system for downstream releases.

b. Describe the relationship between the Resource Action and the project, including any project impacts the Resource Action is intended to address:

An early warning system and an evacuation plan are essential components for a proper flood protection program for a major river, such as the Feather River.

c. Identify any comprehensive plans that this Resource Action is related to:

Sacramento and San Joaquin River Basins Comprehensive Study
Post Flood Assessment
Enhanced Flood Response IP
Model Information
(Upper) Feather River, CA, PAS Floodplain Study, January 2002, prepared jointly by the U. S. Army Corps of Engineers and Department of Water Resources.

PM&E Option Identification Form

It is anticipated that potential PM&E options may be very preliminary at this stage. Please fill out as many sections as possible but, at a minimum, sections 1, 2, and 3. PM&E options may be refined, reviewed and screened over time through Work Group, Plenary and Settlement discussions.

1. Name of Proposed PM&E Option:

a. Name of proposed PM&E option:

Watershed Protection

(BC PM&E #11)

2. Proposed PM&E Option - Please describe and include the following:

a. Describe the proposed PM&E option in as much detail as practical:

The FERC Hydroelectric Project Hand book on pages 91 and 92 states that the final license shall include the "identification of all relevant comprehensive plans and land management plans and discussion of the project's consistency or lack of consistency with each plans. A major item often lacking in submitted applications is the identification and discussion of relevant comprehensive plans". A watershed-based approach will be used to integrate the following plans for the benefit of the licensee and for the enhanced environmental and socio-economic health of the watershed areas that drain to the Lake Oroville facility:

(1) the Army Corps of Engineers, Sacramento and San Joaquin River Basins Comprehensive Study,

(2) the US Forest Service's Sierra Nevada Conservation Framework, which includes the implementation of the 5-year Quincy Library Group forest health pilot project on the Plumas, Lassen and Tahoe National Forests, and

(3) the US Department of Agriculture's and Interior's National Fire Plan.

The Watershed PM&E is designed to reduce the intensity of wildfire and to improve the quality and quantity of useable runoff from the Feather River watershed through thinning of "ladder fuels" such as dense understory vegetation in overstocked forest stands. A 2003 study by the USFS using the "Disturbed WEPP erosion prediction model" concludes that "wildfire is predicted to produce nearly 70 times as much sediment as thinning" under certain conditions. The Oak Ridge National Laboratory conducted a preliminary study of summer water yield effects from implementing the Quincy Library Group forest thinning program. The WRENSS model predicts that seasonal runoff would increase by 3/4 of a percent for west slope forest stands just from reduced evapotranspiration and not including groundwater-related streamflow augmentation.

The Watershed PM&E is also designed to moderate winter flood peaks and to augment summer baseflows by restoring flood plain function to degraded meadows and streams in the Feather River basin. The Feather River Coordinated Resource Management (FRCRM) group has been implementing over 40 stream bank erosion control and meadow re-watering projects since 1985 in the upper Feather River watershed. Project monitoring combined with modeling-based predictions (Bond,1997; Kattlemen,1987) suggest that meadow and stream restoration in combination with upland vegetation management could reduce flood peaks by 5% for the first 24 to 36 hours of a severe winter storm under a specific range of conditions, while enhancing summer flows by 7%. Dr. Romm, an economist at UC Berkley, conducted a cursory survey of the value of environmental services from the Feather River watershed in 1999 and concluded that "in certain conditions, riparian and meadow restoration can actually enhance water storage more efficiently than dam augmentation".

These assessments are promising but not conclusive, as indicated by the April 1996 study by CH2MHill entitled "Reinvestment Opportunities for the Feather River Watershed" and the 1999 study by the Planning and Conservation League Foundation entitled "The Benefits of Watershed Management: Water Quality and Supply -- A Report, Literature Review and Economic Benefits Discussion With an Emphasis on the Sierra Nevada." To move forward with predicting and realizing local and downstream watershed benefits, coordination of watershed modeling, monitoring and project implementation needs to be strengthened.

Strategic and effective cooperation between key local, state and federal agencies having management responsibilities in the basin is needed. Both Butte and Plumas Counties, as area of origin State Water Project Contractors, have initiated actions to advance the Watershed Protection PM&E. Butte County is evaluating DWR's Feather River Watershed Model and other potential modeling tools in cooperation with Dr. Kavvas at UC Davis under a current contract with DWR's Division of Planning and Local Assistance. Plumas County endorsed a grant proposal to CALFED to fund an integrated modeling, monitoring and implementation project for nine miles of meadow re-watering on Last Chance Creek with the FRCRM and Dr. Kavvas. This project is currently underway. The Plumas County Flood Control and Water Conservation District was a party to the 2003 Settlement Agreement that concluded the PCL v DWR litigation on the 1995 Monterey Agreement. The Settlement Agreement includes the establishment of a Watershed Forum to further the goals of the State Water Contractors, including Butte and Plumas Counties. Goals include implementing watershed projects in the Feather River basin that (1) improve retention (storage) of water for augmented base flow in streams; (2) improve water quality (specifically, reduced sedimentation) and streambank protection; (3) improve upland vegetation management and (4) improve groundwater retention/storage in major aquifers.

Butte County has retained Forest Community Research to begin addressing the barriers to watershed investment that were identified in the congressionally funded 1996 Sierra Nevada Ecosystem Project, (discussed in detail in Forest Community Research's book titled Community Forestry in the Unitred States) and which still constrain Butte County's

ability to ameliorate the highest rates of poverty in the Sierra, occurring in the vicinity of Lake Oroville. These barriers include inadequate assessment and valuation of ecosystem benefits and jurisdictional and institutional fragmentation.

Therefore, Butte County requires funding to:

1. Develop a Feather River Watershed Model;
2. Develop watershed models for Butte Creek, Big Chico Creek, Rock Creek and other streams recharging the Butte Groundwater Basin;
3. Cooperate in watershed monitoring programs to improve scientific knowledge;
4. Enhance the application of fuel load reduction, forest thinning practices and salvage of marketable, small diameter timber; and
5. Improve the economy of forest communities through employment in improved management of forest resources.

b. Any physical or operational changes:
1 Yes 0 No 0 Don't know
If Yes, Please explain:

Initial USGS PRMS model runs have indicated a 40% increase in winter runoff and 40% decrease in April-July runoff, due to an increase of temperature of 5 degrees [F or C?] during the 21st Century This magnitude of change in the timing and amount of flows can impact the Oroville operations significantly. During the new license period, the operational conflicts between flood reservation needs and recreation and water supply storage needs in the reservoir will be exacerbated by climate-induced hydrologic variability. Investing in enhanced flood retention in the upper watershed and in better flood forecasting has the potential to reduce conflicts and improve operational flexibility.

c. Proposed start date and duration
Start (month/yr): October 2003 Duration (month(s)/yr(s)): Ongoing

d. Location (within FERC boundary/outside FERC boundary)
0 Inside 1 Outside 0 Don't know
Please specify possible location(s) referring to the linked map, or providing a map as appropriate:

The entire Feather River Watershed within Butte, Plumas and Lassen Counties (map attached).

e. Please provide alternative potential PM&E options for addressing the same resource goal and/or Project 2100 effects referring to the linked map, or providing a map as appropriate: __

1 Unknown

f. Describe the methods for measuring the goals and performance of the PM&E option or methods for evaluating success against the known resource goal(s):

Modeling and monitoring changes in runoff; evaluating the savings from reducing major forest fires; estimating the amount of value added products and jobs created. from watershed rehabilitation activities such as meadow rewatering, vegetative fuels reduction, fish and wildlife habitat enhancements and water quality improvements; and evaluating the effects of these changes on community health and opportunities along with tracking changes in the socio-economic status of impoverished communities in the vicinity of Lake Oroville.

0 Unknown

g. Describe the feasibility of the PM&E option:

The watershed rehabilitation approaches described here have already been tried and are in use in Trinity, Plumas, Yuba and other Northern California Counties. Watershed models have been developed for many western watersheds. Numerous studies have identified two major barriers to sustained watershed investment as: (1) linking watershed scale modeling with project level monitoring and implementation in order to document benefits and justify investments by beneficiaries, and (2) developing the institutional mechanisms and arrangements to facilitate investment partnerships. Butte County is piloting the studies and the institutional relationships that are necessary to address these barriers and to increase the operational flexibility and the multipurpose benefits of the Lake Oroville facility.

0 Unknown

h. Please mark the applicable Working Groups that would be involved in the implementation of this PM&E option:

1 Land Use and Management
1 Recreation & Socioeconomics
0 Cultural Resources
1 Engineering and Operations
1 Environmental

3. Contact Information for Submitter(s) & Alternate Contact:

a. Organization name: Department of Water & Resource Conservation

b. Preparer's name, phone number and e-mail address: Ed Craddock, 530-538-3804, ecraddock@buttecounty.net and Leah Wills, 530-284-7294, lwills@fcresearch.org

c. Secondary contact person, phone number and e-mail address: Dave McClain, 530-538-7621, dmcclain@buttecounty.net

d. Date prepared: August 6, 2003

e. Organization(s) represented by submitter: Butte County

- - - - - - - **Please fill out the following questions to the best of your ability** - - - - - - -

4. Resource Goals:

a. Identify and describe the resource goal the PM&E option is related to, providing reference to the resource goal number(s) described, as appropriate: __

0 I don't know

b. Explanation of how the PM&E option furthers that goal: __

0 I don't know

5. Identify the Resource Issue/Relationship to Project and Relicensing

a. Describe the issue the PM&E option is intended to address, referring as appropriate to Issue Statement(s) number(s): __

0 Unknown

b. Describe the relationship between the PM&E option and the project, including any project impacts the PM&E option is intended to address:

__

0 Unknown

c. Identify any comprehensive plans that this PM&E option is related to:__

0 Unknown